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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,291

12/20/2005

Laurent Allidieres

Serie 6312

1656

40582

7590

12/09/2010

American Air Liquide, Inc.  
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EXAMINER

MCKINLEY, CHRISTOPHER BRIAN

ART UNIT

PAPER NUMBER

3781

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,291	<b>Applicant(s)</b> ALLIDIERES ET AL.	
	<b>Examiner</b> CHRISTOPHER B. MCKINLEY	<b>Art Unit</b> 3781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-18, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 and 15 is/are allowed.
- 6) ☒ Claim(s) 11, 12, 14, 16-18, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 12, 14 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ettlinger (6,595,382) in view of Immel et al. (2004/0195246). Ettlinger discloses the limitations of the claims including cryogenic fluid tank (Figs 1 and 2) comprising an inner casing (2) arranged in an outer casing (1) with a vacuum insulation space in between (see [0030] lines 2-5), the casings having a flattened general configuration (see [0028] lines 3-6) , wherein it comprises at least one tubular structure (8) which connects the two main faces of the inner casing and in which there extends at least one rigid linking element (7) connecting the two main faces of the outer casing (see [0035]). Ettlinger excludes what Immel et al. teach, at least two flexible non-metallic (see [0021]) linking elements (fig. 1, 50) connecting main faces of metallic (see [0018]) inner (22) and outer (26) casings. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify Ettlinger with flexible linking elements in order to connect said inner and outer casings while preventing heat loss via conduction between the two casings.

Regarding the thickness of the casing, claim 19, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the references as

Art Unit: 3781

described above with a casing having a thickness below 4 mm in order to facilitate design choice while optimizing functional and monetary efficiency. Moreover, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 11, 12, 14, 16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ettlinger (6,595,382) in view of Reese (3,155,265). Ettlinger discloses the limitations of the claims including cryogenic fluid tank (Figs 1 and 2) comprising an inner casing (2) arranged in an outer casing (1) with a vacuum insulation space in between (see [0030] lines 2-5), the casings having a flattened general configuration (see [0028] lines 3-6) , wherein it comprises at least one tubular structure (8) which connects the two main faces of the inner casing and in which there extends at least one rigid linking element (7) connecting the two main faces of the outer casing (see [0035]). Ettlinger excludes what Reese teaches, at least two flexible (col. 2, line 25) linking elements (fig. 9, 13) connecting main faces of metallic (col. 5, lines 44-60) inner (10) and outer (11) casings. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify Ettlinger with flexible linking elements in order to connect said inner and outer casings while preventing heat loss via conduction between the two casings.

Regarding the thickness of the casing, claim 19, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the references as described above with a casing having a thickness below 4 mm in order to facilitate

Art Unit: 3781

design choice while optimizing functional and monetary efficiency. Moreover, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Allowable Subject Matter***

Claims 13 and 15 are allowed.

### ***Response to Arguments***

Applicant's arguments filed 6/16/2010 have been fully considered but they are not persuasive. Applicant contends Immel does not have at least two flexible inks physically connecting a main face of the outer container and a main face of the inner casing. Examiner disagrees.

Examiner agrees that Immel teaches flexible links (50) physically attached to inner casing (22) and frame (26). However, this distinction does not preclude Immel from meeting the aforementioned limitation. Referring to figure 2 of Immel, it can be seen that frame (26) is connected to and supports an inner main face of outer casing (28). As stated above, flexible links (50) are mounted on frame (26) and a main face of inner casing (22). Therefore, flexible links (50) connect the main faces of said inner and outer casings via the physical connection between the frame and the outer casing. Note, the claims do not require that said flexible links be in physical contact with main faces of said inner and outer casings. Applicant attempts to remedy this

Art Unit: 3781

deficiency by using “physically” but “physically connecting” and “in physical contact” are not the same.

Furthermore, Immel can likewise be read as having a multi-layered outer casing containing inner (26) and outer (1) layers wherein at least two flexible linking elements (50) are respectively physically linking a main face of the outer casing (26) and a main face of the inner casing (22).

### ***Conclusion***

Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F. R. 1.111, including: “The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims “define a patentable invention” without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, “The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims.” Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP 2163.06 and MPEP 714.02. The “disclosure” includes the claims, the specification and the drawings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER B. MCKINLEY whose telephone

Art Unit: 3781

number is (571)272-3370. The examiner can normally be reached on Monday-Thursday, 7:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony Stashick/  
Supervisory Patent Examiner, Art  
Unit 3781

/C. B. M./  
Examiner, Art Unit 3781